SAN DIEGO COUNTY BOARD OF EDUCATION
6401 LINDA VISTA ROAD, SAN DIEGO, CALIFORNIA 92111-7399 (858) 292-3500

Superintendent of Schools
Randolph E. Ward, Ed.D.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Modernizing the E-rate	)	WC Docket No. 13-184
Program for Schools and Libraries	)	

COMMENTS BY THE SAN DIEGO COUNTY OFFICE OF EDUCATION RELATED TO THE E-rate 2.0 NOTICE OF PROPOSED RULEMAKING

The San Diego County Office of Education (SDCOE) is the educational service agency that serves 42 school districts, over 50 charter schools, and nearly 500,000 students throughout San Diego County, California. Additionally, SDCOE operates the County's Juvenile Court and Community Schools program which serves juvenile offenders, homeless students and other at-risk minors. An essential SDCOE organizational goal is to prepare students to be effective contributors to society. Continual Internet and telecommunications connectivity are critical elements to achieving this goal. The students and teachers in San Diego, and across the country, are utilizing instructional technologies such as Learning Management Systems (LMS), electronic textbooks, and online formative and summative assessments. Our students and instructional technologies are increasingly reliant upon high speed Internet connectivity.

Increasingly San Diego school districts, like others throughout the country, are experiencing a transformation in education fueled by technology. We see programs where students are able to conduct research, collaborate in small groups, and develop rich interactive content made up of video, digital media and text through the use of Internet-based resources. Teachers are also using online assessment tools to provide immediate feedback on student learning and rapidly implement interventions for students at risk of falling behind. In the Bonsall School District for example, (2500 students, 4 schools including a charter school on the Pala Indian reservation) students are utilizing technology in every classroom using a sophisticated cloud-based curriculum and assessment systems. The combination of well-trained teachers, fast Internet connections (100Mb+ to all sites and the Internet) and engaged leadership, Bonsall saw one of the highest student gains in standardized testing throughout the state. Other districts that have implemented 21st century learning environments in a responsible way are also seeing encouraging results in student achievement. We are merely at the beginning of this

transformation and policies such as E-rate and the President's ConnectEd program will assist schools as they continue to make an educational shift to new learning environments.

First and foremost, the SDCOE believes that E-rate must focus on broadband improvements and access for all students both in and out of school. The majority of our schools are utilizing Internet speeds of 10Mb or less with many still at T-1 (1.5Mb/sec) speeds. Approximately 25% have speeds of 100Mb or higher, but are then throttled to the Internet by shared circuits that in many cases are at the 100Mb speed or less.

To address the need for expanded education connectivity, we strongly encourage the FCC to modernize E-rate that allows all schools and students in the United States to be empowered with a high-speed Internet connection to complement high quality teaching and digital resources.

We are encouraged that E-rate 2.0 may provide an opportunity to design an E-rate system geared for the learners of today and tomorrow. In order to improve Internet speeds for schools an end-to-end architecture (from Internet to classroom) should be the focus of E-rate. It is not good enough to increase circuit speeds for a district or school, but all of the components necessary to improve student Internet speeds needs to be considered. These components include content filtering, Wireless Access Points (WAP), and necessary routers and firewalls.

In support of E-rate 2.0, the SDCOE supports three broad categories for consideration: (1) appropriate funding levels; (2) funding for functions and services directly related to learning support; (3) streamlined bureaucratic processes.

The SDCOE has participated in the E-rate process since its inception and currently provides E-rate related advisory services to the schools and districts in our region. As a participating member in the E-rate program, we have been witness to its implementation, growth and modernization throughout the years. We would like to assist in the efforts to formulate the next generation of the E-rate program by offering our comments on the current Notice of Proposed Rulemaking regarding E-rate 2.0.

Appropriate Funding Levels

1. **Increased Overall Funding Cap:** Since the inception of the E-rate program the funding cap has remained relatively unchanged. With the evolution and maturity of instructional

technologies, schools across San Diego and the country are unable to adequately fund infrastructure and bandwidth requirements. Of the $77 million in E-rate funding received by San Diego County school districts in 2012/13, approximately $30 Million was for Priority 1 and the remainder Priority 2. Of the $47 Million in Priority 2 funding, $43 Million went to San Diego Unified and the remainder went to just a handful of districts. The Majority of the 42 school districts in the county either did not apply for Priority 2 funding, or were denied. As districts are implementing mobile technologies for learning, the lack of end-to-end E-rate broadband funding is inhibiting transitions in student learning.

2. **Reimburse Applicants Directly During the BEAR Process:** The BEAR process requires the applicant to contract for and pay for goods and services upfront, and be reimbursed through the service provider. This process is counter-intuitive due to the fact that the applicant has the contract with the service provider and has paid the service provider the entire sum due the service provider before the BEAR process is initiated. Once a service provider has been paid in full by an applicant, the debt is fully satisfied and the funds are due to the applicant. Currently, the Universal Service Administrative Company (USAC) sends the refund to the service provider who in turn must refund the applicant. The BEAR refund is due to the applicant, not the service provider and thus should be sent directly from USAC to the applicant.

Funding for Functions and Services Directly Related to Learning

3. **Internet-based Applications:** As learning and learners become increasingly mobile, cloud-based applications should be E-rate eligible. Mobile Device Management (MDM) solutions, Internet-based content filtering and antivirus applications are important parts of the instructional technology ecosystem and extending E-rate eligibility for these solutions aligns with the original intent of CIPA and other Internet safety precautions.

4. **CIPA Compliance on Mobile and Private Student Internet capable Devices:** The increased use of laptops, notebooks, smartphones and e-readers creates undue burden on schools to manage E-rate related CIPA compliance. We believe that FCC mandated CIPA compliance should only be required when using networks, equipment or Internet access that is purchased with E-rate funding. School provided devices used by students and teachers, on or off school campuses, as well as personal devices used on campus should be regulated by school district board policies and not by the FCC. The E-rate program does not fund end user devices such as those mentioned previously, therefore it should not try to regulate the use of the device, but only

the E-rate provided Internet access. All schools and libraries should be required to filter their incoming E-rate funded Internet connection. CIPA required Internet filtering hardware and services should be funded as Priority 1 as part of the Internet access itself.

5. **Strategic Funding Additions and Phase-out:**
We agree with the proposed increase of bandwidth through ConnectED, and we agree with phasing out services that do not support learning. For example, the convergence of voice and data now allows for increased efficiencies through Voice over Internet Protocol (VOIP). Increasing bandwidth and defunding targeted programs are positive steps. Additionally, we believe that allocating funds to support internal site and districts connectivity, wireless access points, firewalls, filtering, and related internal routers also are part of the overall equation.

Streamlined Bureaucratic Processes

6. **E-rate Process Reengineering:** We respectfully submit the following recommendations to streamline the E-rate process:

1. Requiring all forms and USAC correspondence to be submitted/sent electronically and archived by USAC so that an applicant or auditor could have access to the data.
2. Providing more detailed and comprehensive funding statuses throughout the application process including estimates of when an application is scheduled to be reviewed.
3. Speeding review of applications and issuance of commitment decisions by approving applications on a per FRN basis rather than a per application basis.
4. Removing the distinction between telecommunications services and Internet access
5. Considering fewer recovery actions for rule violations or decisions made during PIA review unless there is criminal activity.
6. More effectively identifying and capturing unused funds by setting a time schedule and notifying applicants and service providers of the impending sweep.
7. Streamlining the E-rate application process by allowing multi-year contracts to be approved in the first year of the contract and not require the filing of additional Form 471s for subsequent years of the contract.
8. Providing approved master purchase agreements for E-rate eligible goods and services that would not require intense PIA review.

7. **Document Retention:** The current five year document retention requirement of E-rate related documents is adequate to preserve the integrity of the E-rate program. The Universal Service Administrative Company recommends creating a "binder" to maintain all E-rate records

for the current five year period. Experience with past E-rate audits has proven that a great deal of backup information is required during an audit, and the binder approach is only useful to maintain the correspondence between the applicant and USAC. USAC should be the electronic document repository for all required documentation that may be needed to audit an applicant. The USAC already has records of all forms filed, attachments received, e-mail and telephonic records of communications between USAC and applicants, commitments and decisions made with respect to the applications and similar records relating to service providers. USAC should insure that during the PIA (Program Integrity Assurance) process, all required audit documentation is received from the applicant initially, and that PIA decisions are determinations-of fact to prevent applicants from facing recovery on a funding commitment that an auditor later found that was improperly approved by the PIA.

8. **E-rate Eligible Services Selection:** Competitively bid state master contracts and other large purchasing consortium agreements should be available for procurement of E-rate eligible goods and services. USAC should also consider using federal government pricing for eligible services not only as a measure of cost-effectiveness, but also make that pricing available to E-rate applicants. Having a national or statewide USAC approved purchasing agreement available to applicants would simplify the competitive bidding process for the applicants, ensure that the lowest corresponding price is being utilized and dramatically reduce the PIA review process.

9. **Eligible Services Revision:** The FCC should treat lit and dark fiber equally as far as installation and lighting. The current E-rate program favors common carriers by preventing, or making it difficult for schools from owning their own WAN infrastructure. Schools and districts in a region should be able to form their own consortia to develop educational WANs that might serve many districts. This coupled with access to high speed ISP connections to the Internet 2 in regions could dramatically reduce inter-campus infrastructure for schools. Funding for modulating electronics (within limits) should be provided as part of priority one funding.

10. Applicant Assistance in Designing and Implementing Cost-Effective Internet Access solutions: The Helping Applicants to Succeed (HATS) program, established by USAC, assists applicants in proper procedural E-rate matters related to rule compliance and application processes. The SDCOE believes this program should be expanded to make USAC provided network consulting and engineering services available to small, rural and low income schools and libraries who may not have access to local network engineering expertise. Providing this assistance would reduce the applicants' reliance on vendor driven solutions that might not meet

the applicant's goals or be the most cost-effective solution. This service could be provided under priority one funding requests covering the services the USAC consultant recommends.

11. Off-Campus Wireless Access

In the introduction of the NPRM, there is a brief mention of the Learning on the Go (EDU 2011) pilot project for off-campus broadband. The *Notice* does not propose to provide E-rate funding support for either off-campus 3G/4G connectivity or the mobile devices needed to take advantage of such connectivity. This overlooks the successful results of the FCC's own wireless pilot program that provided funding for off-campus wireless connectivity.

In San Diego County, the San Diego Unified School District (SDUSD) was one of 20 E-rate applicants selected – out of a total of 94 applications – to participate in the Commission's Learning On-The-Go (LOGO) wireless pilot program in March 2011, which provided E-rate funding for off-campus wireless access.[1] At the time, the FCC rightly acknowledged that "these projects serve an educational purpose by enabling innovation in learning outside the boundaries of school buildings and the traditional school day, as well as enabling the library system to innovate with new models of delivering service to library patrons."[2]

Interim LOGO Wireless Pilot Program reports showed impressive results

The "Summary of Interim Reports Submitted by EDU 2011 Pilot Program Schools and Libraries" filed in WC Docket No. 10-222 by SDCOE on April 20, 2012 highlighted some of the successes of the pilot program. In San Diego, the LOGO pilot program provided evidence of students' improving achievement, staying in school instead of dropping out, feeling more confident in mathematics, taking ownership for their learning, and showing an increased interest in college. In addition, there was greater communication with parents who speak a foreign language, and improved professional development opportunities for community members to improve their technology skills and seek employment.

Final reports from the selected schools and libraries were filed with the FCC in October 2012. We understand that the final reports showed that enabling 24/7 learning opportunities via off-campus wireless access funded via the E-rate program yields impressive results and strongly

---

1 *See* E-rate Deployed Ubiquitously 2011 Pilot Program, *Order*, WC Docket No. 10-222, DA 11-1181 (July 11, 2011).

2 *Id.* at ¶ 6 (citing *Schools and Libraries Sixth Report and Order*).

suggests that continuing these initiatives and opening the program to all E-rate applicants would correlate to improved student achievement and opportunities across the United States.

San Diego Unified School District's LOGO Program Shows Impressive Results.
Knowing that every student, regardless of background or socio-economic status, has anytime/anywhere access to robust online curricula has enabled teachers to truly innovate their teaching practices and change their instructional design. This allows students to develop 21st Century skills on a daily basis, at school, at home, and anywhere in between.

Locally, LOGO teachers embraced the robust use of the SDUSD-supported Learning Management System, called Moodle, as well as the utilization of multiple web 2.0 tools to foster collaboration, critical thinking, and creativity by dramatically turning traditional instruction "upside down." Math teachers were the first teachers in SDUSD to share their ideas involving the "flipped" classroom. Flipped learning happens when the teacher's lecture is delivered to students via video outside of the classroom, and traditional class time is used for active problem solving and one-to-one or small group tutoring with the teacher. Students can watch the short video lectures as many times as they wish to grasp the content and then come to class ready to jump into the lesson, ask questions, work on collaborative projects and explore the content further. Students take a quick online assessment based on the video and are placed in differentiated groups which allows the teacher to provide a more personalized learning environment with one-on-one attention and small group instruction. As a result, teachers reported that they have more time to interact with individual students, something not always possible with traditional direct instruction.

Students overwhelmingly reported that they believe that the school-to-home access has enhanced their learning, allowing a more personalized, relevant, and differentiated learning environment.

Between 2010 and 2011, Innovation Middle, an SDUSD LOGO school, had a 43 point increase in the school's Academic Performance Index score, the highest gain of any middle school in the San Diego Unified School district. LOGO students across the district report that they are more motivated by the digital environment and enjoy making presentations and demonstrating projects to authentic audiences and, as a result, teacher indicate they have achieved higher levels of quality.

Another LOGO school reported exceptional gains in algebra end of year exam in spring 2012. School administrators attributed student performance at higher levels to the learning environment of the LOGO program coupled with focused teacher training.

The math scores of 7th grade LOGO students indicate the greatest increase in the number of students moving into "Proficient" and "Advanced" on state tests than other 7th graders across the district.
LOGO teachers continue to be leaders in the classroom, experimenting and building the 21st century skills of their students. Students are given the opportunity to create their own learning and be experts as they teach what they have learned to their peers.

Thus, the FCC should expand the E-rate program to fund mobile broadband access inside and outside of schools and libraries, and provide funding for mobile devices such as smartphones and tablets, so that America's poorest students can have anywhere/anytime access to the same learning tools that other students routinely use.

With mobile Internet access, students equipped with tablets or smartphones can at the touch of a finger enter a wide universe of educational materials and opportunities for collaboration with classmates and teachers, and they become better students. They can also learn by helping their families with a multitude of important civic and practical tasks. If students can access the web only while at school, they will do less, and they will teach less to other members of their families.

Accordingly, the FCC should reform the E-rate program more broadly, to include funding for mobile broadband Internet access and devices so that underprivileged students will have the type of anywhere/anytime access that students across the country are using to enhance their learning.

Respectfully Submitted,

Randolph E. Ward, Ed.D
County Superintendent of Schools

Stephen R. Clemons
Assistant Superintendent/Chief Technology Officer
Integrated Technology Services